1 **CLAIM LISTING**

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3   1.   (Currently amended) ~~Each of a plurality of coupling circuits~~ <u>A coupling</u>

4 <u>circuit</u> for a Serial ATA storage device <u>connected to storage device power through a</u>

5 <u>power switch, connected to a first storage controller through a first bidirectional serial</u>

6 <u>communication line, and connected to a second storage controller through a second</u>

7 <u>bidirectional communication line,</u> comprising:

8   a first Serial ATA controller-side transceiver receiving a first Serial ATA

9 communication path;

10   a second Serial ATA controller-side transceiver receiving a second Serial ATA

11 communication path;

12   a Serial ATA storage device-side transceiver;

13   coupling circuit switches selectively coupling either the first Serial ATA controller-

14 side transceiver or the second Serial ATA controller-side transceiver to the Serial ATA

15 storage device-side transceiver; and

16   a microcontroller <u>coupled to the coupling circuit switches and the power switch</u>

17 <u>and</u> adapted to control the coupling circuit switches <u>and the power switch based on</u>

18 <u>communication through the first or the second bidirectional serial communication lines</u>.

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20   2.   (Currently amended) ~~Each of a plurality of coupling circuits~~ <u>The coupling</u>

21 <u>circuit</u> of claim 1, further comprising an out of band squelch control component for

22 activating the first Serial ATA controller-side transceiver receiving a first Serial ATA

23 communication path, the second Serial ATA controller-side transceiver receiving a

24 second Serial ATA communication path, and the Serial ATA storage device-side

25 transceiver.

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27   3.   (Currently amended) ~~Each of a plurality of coupling circuits~~ <u>The coupling</u>

28 <u>circuit</u> of claim 1, wherein the microcontroller includes a processor coupled to [a] <u>the</u>

29 power switch and coupled to the coupling circuit switches.

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1   4.   (Currently amended) ~~Each of a plurality of coupling circuits~~ The coupling

2   circuit of claim 1, wherein the microcontroller includes a processor coupled to a set of D

3   flip-flops that are coupled to [a] the power switch and coupled to the coupling circuit

4   switches.

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6   5.   (Currently amended) ~~Each of a plurality of coupling circuits~~ The coupling

7   circuit of claim 1, wherein the microcontroller is programmed to as follows:

8   switch the coupling circuit to a first storage controller;

9   switch the coupling circuit to a second storage controller;

10   power up the Serial ATA storage device; and

11   power down the Serial ATA storage device.

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13   6.   (Currently amended) ~~Each of a plurality of coupling circuits~~ The coupling

14   circuit of claim 5, wherein the microcontroller is further programmed to as follows:

15   write data to a memory;

16   read data from the memory; and

17   read the status of the coupling circuit.

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19   7.   (Currently amended) ~~Each of a plurality of coupling circuits~~ The coupling

20   circuit of claim 6, wherein the status includes information on whether the Serial ATA

21   storage device is coupled to the first Serial ATA controller-side transceiver or the

22   second Serial ATA controller-side transceiver, the Serial ATA storage device is powered

23   up or down, the communication status, and/or the board revision and code revision

24   levels of the coupling circuit.

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26   Claims 8-21 (Withdrawn)

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1   22.   (Currently amended) Each of a plurality of coupling circuits for a <u>single</u>

2 <u>ported</u> storage device <u>connected to storage device power through a power switch</u>,

3 comprising:

4   a first controller-side transceiver receiving a first communication path;

5   a second controller-side transceiver receiving a second communication path;

6   a storage device-side transceiver;

7   <u>a first control path separate from the first communication path;</u>

8   <u>a second control path separate from the second communication path;</u>

9   coupling circuit switches selectively coupling either the first controller-side

10 transceiver or the second controller-side transceiver to the storage device-side

11 transceiver; and

12   a microcontroller coupled to the coupling circuit switches, the power switch, and

13 the first and second control paths, and adapted to control the coupling circuit switches

14 and the <u>power switch to the single ported storage device based on communication</u>

15 <u>through the first or second control paths</u>.

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17   23.   (Currently amended) ~~Each of a plurality of coupling circuits~~ <u>A coupling</u>

18 <u>circuit</u> for a Serial ATA storage device, comprising:

19   means for receiving a first Serial ATA communication path;

20   means for receiving a second Serial ATA communication path;

21   means for coupling either the first Serial ATA communication path or the second

22 Serial ATA communication path to the Serial ATA storage device

23 <u>communication lines</u>; and

24   a microcontroller adapted to control the <u>means for</u> coupling ~~circuit switches~~ <u>and</u>

25 <u>power to the Serial ATA storage device based on inputs from the communication lines</u>

26 <u>outside the first and second Serial ATA communication path</u>.

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1   24.   (New) A coupling circuit for a Serial ATA storage device connected to

2 storage device power through a power switch, comprising:

3   a first Serial ATA controller-side transceiver receiving a first Serial ATA

4 communication path;

5   a second Serial ATA controller-side transceiver receiving a second Serial ATA

6 communication path;

7   a Serial ATA storage device-side transceiver;

8   a first communication line separate from the Serial ATA communication paths;

9   a second communication line separate from the Serial ATA communication

10 paths;

11   coupling circuit switches selectively coupling either the first Serial ATA controller-

12 side transceiver or the second Serial ATA controller-side transceiver to the Serial ATA

13 storage device-side transceiver; and

14   a microcontroller coupled to the coupling circuit switches, the power switch, and

15 the first and second control paths, and adapted to control the coupling circuit switches

16 and the power switch based on communication through the first and the second

17 communication lines.

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19   25.   (New) The coupling circuit of claim 24, wherein the microcontroller

20 includes a processor coupled to the power switch and coupled to the coupling circuit

21 switches.

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23   26.   (New) The coupling circuit of claim 24, wherein the microcontroller

24 includes a processor coupled to a set of D flip-flops that are coupled to the power switch

25 and coupled to the coupling circuit switches.

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27   27.   (New) The coupling circuit of claim 24, wherein the microcontroller is

28 programmed to as follows:

29   power up the single ported storage device; and

30   power down the single ported storage device.

1   28.   (New) The coupling circuit of claim 24, wherein the microcontroller is
2   further programmed to as follows:
3   switch the coupling circuit to a first storage controller; and
4   switch the coupling circuit to a second storage controller.
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6   29.   (New) The coupling circuit of claim 24, wherein the microcontroller is
7   further programmed to as follows:
8   write data to a memory;
9   read data from a memory; and
10   read the status of the coupling circuit.
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12   30.   (New) The coupling circuit of claim 24, wherein the status includes
13   whether the single ported storage device is coupled to the first controller-side
14   transceiver or the second controller-side transceiver, the single ported storage device is
15   powered up or down, the communication status, and/or the board revision and the code
16   revision levels of the coupling circuit.
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18   31.   (New) The coupling circuit of claim 24, wherein the first and second
19   communication lines are serial bidirectional lines.
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